

Appendix VII
Diamond Drill Core Logs

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 - 101 #1
DIAMOND DRILL CORE LOG

SHEET # 1

Date: FEB 21, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 - 101 # 1
UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
Elevation 50.0m (164.05') Logged by: Roland Strickland
Dip at collar Vertical Drilled by: East Coast Drilling
Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
<u>143m (469')</u>				<u>Shoe</u>

143.0-153.0m (469.0'-502')				No core recovery
153.0-154.77m (502'-508')	Box 1& 2	Claystone: Predominately red, sticky, very soft, water soluble clay, frequent dark red to red brown to orange brown, interbedded with light green, silty claystone, occasional pebbles and silty intervals up to 0.10m wide, calcareous cemented, occasional varied colored.	Strongly hematitized, occasional calcite veinlets parallel to bedding. Veining with infilled calcite rhombs	Bedding 40°-50° from horizontal.
154.77-155.55m (509'-510')	2	Claystone: Red, sticky, very soft claystone, interbedded with red argillaceous pebbles.	Totally hematitized.	Bedding 30°-40° from horizontal.
155.55-157.92m (510'-518')	3	Claystone: Predominately red, sticky claystone very soft, water soluble, with alternating layers of light green, silty claystone, with frequent feldspar pebbles.	Strongly hematitized, occasional calcite veinlets parallel to bedding. Abundant calcareous cement.	

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 2

Date: FEB 21, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 #1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: East Coast Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
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157.92-158.42m (518'-520')	Box 4	Claystone: Predominately massive, red, sticky, very soft, water soluble claystone	Well developed slickensides, parallel to bedding @160.66m.	
158.42-158.92m (520'-521')	4	Sandstone: Red, orange yellow, light green, medium to coarse grained, moderately sorted, subrounded, predominately quartz, hard to friable, consolidated with calcareous cement, arkosic, occasionally conglomeratic with brecciated fragments of quartz and orange feldspar.	Strong calcareous cement. Totally hematitized.	Loss 2.24m of core because of the friability. Increased viscosity to prevent losses.
158.92-161.16m (521'-529')				Loss core.
161.16-161.84m (529'-531')	4	Claystone: Red, yellow -brown, rare dark gray, sticky, very soft, unconsolidated.	Strong calcareous cement. Totally hematitized.	
161.84-162.34m (531'-533')	4	Gypsum: White, massive to powdery gypsum, occasionally crystalline, very firm.		

**AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG**

SHEET # 3
Date: FEB 21, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: East Coast Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
162.34-162.58m (533'-533.4')	4	Anhydrite: White, slightly blue -gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, minor red-gray gypsum.		

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 4

Date: May 29, 2001

Location (NTS): 12 B / 7
 UTM Co-ord: N 53 55990, E 3 86625
 Elevation 50.0m (164.05')
 Dip at collar Vertical
 Total Depth: 500m (1640.5')
 Hole No: Flat Bay 93 – 101 # 1
 Spud Date: June. 30, 2001
 Logged by: Roland Strickland
 Drilled by: East Coast Drilling
 Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
162.58-169.03m (533.4'-555')	5 6	Anhydrite: White, slightly blue –gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, minor red-gray gypsum, occasional calcite crystals @ 166.8m(547') to 168.12m(552') brecciated anhydrite fault zone. @ 168.12m(552') to 169.03m(555') Anhydrite: same as above, white, off white, glassy, crystalline.	At 164.59m(540') voids infilled with calcite crystals. Red hematite staining and calcareous cement throughout. brecciated, infilled with dark grey mud + crystalline gypsum, strongly calcareous.	Hematitized with calcite veinlets. Loss 1.38m(4.5') core @ 166.31m(546')

169.03-170.55m (555'-560')	7	Mudstone: red brown, with light green slightly calcareous, occasional white gypsum stringers		Bedding 40°-50° from horizontal.
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AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 5

Date: May 29, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: East Coast Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
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170.55-184.64m (560'-606')	7	Anhydrite: White, slightly blue -gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, minor red-gray gypsum, occasional calcite crystals. 8 Occasional red stylolitic mud seams @ 178.25m(585') 9 Dark grey shale lenses @ 174.09m(571') 0.15m(0.07') thick. 10 White glassy crystalline calcite @ 180.13m(591') 3mm thick. 11 Red brown mud seam @ 181.59m(596') 4cm thick. 12 Dark grey shale lense @ 181.86m(597') 3mm thick.		Loss 0.46m(1.5') core @ 172.40m(566')
184.64-205.25m (606'-673')	12	Halite: clear, transparent – translucent, glassy, hard, crystalline, white, occasionally granular. Abundant white crystalline calcite with minor white-tan gypsum and blue white anhydrite. Drilling mud and calcite grains from core barrel @ 190m(623') had trace slow yellow cut florescence. Only retrieved 1.3m(4.26') of core. Assumed Halite core washed away.	Bedding 30°-40° from horizontal.	Loss circulation @ 188m(605') Gas units from 192m(630')- 196m(643') increased from 36 to 170units. Loss 19.31m(63.0') core @ 184.64m- 205.25m(606'- 673') Drilling ahead with fresh water.

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 6

Date: May 18, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: East Coast Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
205.25-217.25m (673'-713')	12	<p>No core recovery after 205.25m(673')</p> <p>Calcite: loose grains, predominately coarse granular, white, tan, hard, occasionally crystalline aggregates, trace nodular, trace vitreous luster.</p> <p>From 206.13-214.25m(676'-703') tan, brown, off white, grains of calcite, occasional rhombs.</p>		<p>Loss core 205.25-220m(673'-722').</p> <p>Drilling ahead with fresh water.</p> <p>Halite core assumed washed away.</p>

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 7

Date: July 18, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: Petro Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
217.25-221.95m (713'-728')	14	No core recovery.		
221.95-223.3m (728'-733')	14	Halite: clear to translucent, glassy, hard, crystalline, white, occasionally granular, calcareous cement, frequent blebs of gypsum.		
223.3-226m (733'-741')	15	No core recovery.		
226m-239.9m (741'-787')	15 16 17 18 19 20	Halite: clear to translucent, glassy, hard, crystalline, white, occasionally granular, calcareous cement, frequent blebs of gypsum. From 235m-235.35m dark black staining from disseminated fine grained pyrite. From 235.76m-236.15m black staining from disseminated fine grained pyrite. From 239.21m-239.48m black staining from disseminated fine grained pyrite. Frequent blebs of gypsum with calcareous cement throughout.		100% core recovery: excellent quality

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 8

Date: July 19, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June. 30, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: Petro Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
239.9m-242.9m (787'-797')	21	Halite: clear to translucent, glassy, hard, crystalline, white, occasionally granular, calcareous cement, frequent blebs of gypsum. From 240.59m-241.00m black staining from disseminated fine grained pyrite.		100% core recovery: excellent quality
242.9m-243.4m (797'-799')	22	Claystone: Predominately red, sticky claystone soft, with occasional feldspar pebbles, highly hematitized with halite lenses throughout.		
243.4m-254.9m (799'-836')	23	Halite: clear to translucent, glassy, hard, crystalline, frequently massive, white, occasionally granular, minor calcareous cement, frequent blebs of anhydrite		100% core recovery: excellent quality
	24	From 246.69m-247.43m black staining from disseminated fine grained pyrite and frequent red iron oxide staining.		
	25			
	26			
	27	Anhydrite: white, slightly blue-gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, minor red-gray gypsum, occasional calcite crystals.		
254.9m-255.5m (836'-838')	27			

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 9

Date: July 19-20, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
UTM Co-ord: N 53 55990, E 3 86625 Spud Date: June 30, 2001
Elevation 50.0m (164.05') Logged by: Roland Strickland
Dip at collar Vertical Drilled by: Petro Drilling
Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds	Remarks
			<u>Alterations</u>	

255.5m-272.5m (838'-894')	28	Halite: clear to translucent, glassy, hard, crystalline, frequently massive, white, occasionally granular, minor calcareous cement, frequent blebs of anhydrite		100% core recovery: excellent quality
	29			
	30			
	31			
	32	From 268.00m-268.89m black staining		
	33	from disseminated fine grained pyrite and frequent red iron oxide staining.		
	34	Grey stringers of shale from 256.18m – 256.52m.		
	35			
272.5m-275.1m (894'-903')	35	Claystone: Predominately red-brown, grey-green, soft-medium hard, interbedded halite lenses up to 4 cm thick, frequently hematitized, strong calcareous cement		Bedding 40° from horizontal.
	36			
275.1m-328.9m (903'-1079')	37	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, white, occasionally granular, minor calcareous cement, occasional blebs of anhydrite		100% core recovery: excellent quality
	38			
	39			
	40			
	41			
	42	Red, grey-green claystone – shale @		
	43	301.37m to 301.64m. Minor red-brown hematitization.		
	44			
	45			
	to			
	60			

**AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG**

SHEET # 10
Date: July 21-22, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Start Date: July. 15, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: Petro Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
328.9m-409.5m (1079'-1344')	61 to 96	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, occasional white, granular, minor calcareous cement, occasional blebs of anhydrite Broken core at 355.58-356.97m, 374.55-376.30m, 391.00-391.60m		100% core recovery: excellent quality
409.5m-413.5m (1344'-1357')	96 97 98	Anhydrite: white, slightly blue-gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, occasional calcite crystals.	Small scale plastic deformation.	Bedding 10°-15° from horizontal.
413.5m-438.9m (1357'-1440')	98 to 109	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, occasional white, granular, minor calcareous cement, occasional blebs of anhydrite		100% core recovery: excellent quality

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 11

Date: July 23, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625 Start Date: July. 15, 2001
 Elevation 50.0m (164.05') Logged by: Roland Strickland
 Dip at collar Vertical Drilled by: Petro Drilling
 Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
413.5m-440.4m (1357'-1445')	110	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, occasional white, granular, minor calcareous cement, occasional blebs of anhydrite		100% core recovery: excellent quality
440.4m-456.4m (1445'-1497')	110 to 117	Anhydrite: white, blue-gray, massive, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, occasional calcite crystals. Two (2) cm grey shale lense @ 442m Vertical salt lense 10mm wide 451.1-451.6m 45° salt lense 2 cm wide @ 454.6m 45° salt lense 2 cm wide 455.4-455.6m		Bedding 30° –46° from horizontal.
456.4m-478.0m (1497'-1568')	117 to 127	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, occasional white, granular, minor calcareous cement, frequent white blebs & stringers of anhydrite. At 456.4-465.72m massive coarse crystalline salt.		100% core recovery: excellent quality
478.0m-503.9m (1568'-1653')	127 to 138	Anhydrite: blue-gray, white, massive, hard, very firm to brittle, fibrous, occasionally coarse crystalline, glassy appearance, slightly mottled, occasional calcite crystals.		Bedding 10° –30° from horizontal. Very high grade. Possibly lower portion of the evaporite basin

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 12

Date: July 24-25, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
 UTM Co-ord: N 53 55990, E 3 86625
 Elevation 50.0m (164.05') Start Date: July. 15, 2001
 Dip at collar Vertical Logged by: Roland Strickland
 Total Depth: 500m (1640.5') Drilled by: Petro Drilling
 Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
503.9m-582.5m (1653'-1911')	139 to 165 to 173	Anhydrite: blue-gray, white, massive, hard, very firm to brittle, fibrous, frequently coarse crystalline, glassy appearance, slightly mottled. Poor porosity. Saturated with light brown Oil staining, bright yellow fluorescence throughout, frequent streaming blue-yellow cut fluorescence. Occasional light brown oil staining from 557.9-582.4m		Bedding 0° –10° from horizontal. Very high grade. Possibly lower portion of the evaporite basin
582.5m-606.6m (1911'-1990')	173 to 184	Halite: clear to translucent, glassy, hard, coarse crystalline, predominately massive, occasional white, granular, minor calcareous cement, frequent white blebs & stringers of anhydrite. Frequent stylotitic structures filled with HYDC, giving yellow fluorescence. Occasional chicken –wire like texture filled with calcareous grey shale Continuous parallel veinlets of anhydrite + frequent blebs & layers 0.3-0.9mm wide. Dark brown impurities throughout, possibly hydc staining. From 592.00-592.08 white anhydrite From 593.62-593.88 increase in anhydrite lenses. Abundant yellow fluorescence throughout.		Bedding 20° –30° from horizontal. Bedding 20° –30° from horizontal.

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 13
Date: July 25-26, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
UTM Co-ord: N 53 55990, E 3 86625 Start Date: July 15, 2001
Elevation 50.0m (164.05') Logged by: Roland Strickland
Dip at collar Vertical Drilled by: Petro Drilling
Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
606.6m-643.0m (1911'-2110')	184	Anhydrite: white, blue-gray, massive, hard, very firm to brittle, fibrous, frequently coarse crystalline, glassy appearance, slightly mottled. Frequent veinlets of grey calcareous shale. Shale lens 2.5cm @ 606.7m. Occasional light brown Oil staining, bright yellow fluorescence throughout. Shale (dark grey) laminae 8mm wide @ 623.86m, from 632.2-636.3m. From 639.4m-640.0m up to 10mm wide dark grey calcareous Shale.		Bedding 20°–30° from horizontal. Bedding 30° from horizontal. Bedding 30°–40° from horizontal.

AMERICAN RESERVE ENERGY CORPORATION
FLAT BAY 93 – 101 #1
DIAMOND DRILL CORE LOG

SHEET # 13
Date: July 25-26, 2001

Location (NTS): 12 B / 7 Hole No: Flat Bay 93 – 101 # 1
UTM Co-ord: N 53 55990, E 3 86625 Start Date: July. 15, 2001
Elevation 50.0m (164.05') Logged by: Roland Strickland
Dip at collar Vertical Drilled by: Petro Drilling
Total Depth: 500m (1640.5') Core Size: NQ

Depth	Box	Lithology Description	Faults / Folds Alterations	Remarks
606.6m-658.7m (1911'-2161')	184 to 207	Anhydrite: white, blue-gray, massive, hard, very firm to brittle, fibrous, frequently coarse crystalline, glassy appearance, slightly mottled. Frequent veinlets of grey calcareous shale. Shale lens 2.5cm @ 606.7m. Occasional light brown Oil staining, bright yellow fluorescence throughout. Shale (dark grey) laminae 8mm wide @ 623.86m, from 632.2-636.3m. From 639.4m-640.0m up to 10mm wide dark grey calcareous Shale. From 643.0-658.7m increase in overall calcareous shaly limestone. Shale lenses 10-25mm wide from 645.5m – 647.5m		Bedding 20° –30° from horizontal. Bedding 30° from horizontal. Bedding 30° –40° from horizontal. Bedding 20° –30° from horizontal.
658.7m-660.94 (2161'-2169')	207 to 209	Limestone: (Ship Cove Formation) Limestone: dark grey to grey, micro-crystalline to crystalline, hard, laminated, slightly brecciated, algae-stromatolitic structure, occasional moldic porosity, trace bright yellow fluorescence, with occasional streaming yellow cut fluorescence. Anhydrite is interbedded with limestone mainly in a sharp conformable contact, mainly a chicken – wire texture of shaly – limestone. Strong yellow fluorescence throughout. Shaly-limestone lenses up to 4 cm wide from 658.77m to 660.94m.		Bedding 20° –30° from horizontal.